Listing of the Claims

1. (Currently amended) A mobile services network comprising:

a mobile electronic device;

a management server;

an update package repository;

a generator with nodes preprocessor, which generates a package of update information; and

wherein generating comprises predicting the contents of locations in a new version of firmware based on differences in addresses identified between corresponding symbols in an old version of firmware and the new version of firmware, and identifying as nodes corresponding locations in the old version of firmware for the mobile electronic device and the new version of firmware for the mobile electronic device, for which contents of the location in the new version of firmware was not able to be predicted; and

wherein predicting includes determining location of some symbols based on relocation information gathered from node symbols.

2. (Previously presented) The network according to claim 1 wherein the generator with nodes preprocessor generates update packages by comparing the old version and the new version of firmware.

3. (Original) The network according to claim 2 wherein the update packages are populated into the update package repository.

4. (Original) The network according to claim 2 wherein the generated update packages incorporate filter information.

5. (Original) The network according to claim 2 wherein the generated update packages incorporate node information.

6. (Original) The network according to claim 1 wherein the management server and the update package repository are communicatively coupled.

7. (Original) The network according to claim 1 wherein the generator with nodes preprocessor and the update package repository are communicatively coupled.

8. (Original) The network according to claim 1 wherein the generator with nodes preprocessor is located at a remote location from the update package repository.

9. (Previously presented) The network according to claim 1 wherein the mobile electronic device comprises:
  a non-volatile memory;
  a random access memory; and
  security services.

10. (Original) The network according to claim 9 wherein the non-volatile memory comprises:
  an update agent;
  a firmware and real-time operating system;
  a download agent; and
  a boot initialization.

11. (Original) The network according to claim 10 wherein the non-volatile memory further comprises an operating system layer.

12. (Original) The network according to claim 10 wherein the non-volatile memory further comprises an end-user-related data and content unit.

13. (Original) The network according to claim 10 wherein the mobile electronic device executes an update process according to the following:

downloading an update package from the update package repository;

rebooting;

executing the boot initialization;

determining whether an update process is needed; and

invoking the update agent.

14. (Original) The network according to claim 13 wherein the mobile electronic device determines the need for an update process based on status information.

15. (Original) The network according to claim 13 wherein the mobile electronic device invokes the update agent to execute the update process if it is determined an update process is needed.

16. (Currently amended) A method for generating an update package stored in a computer readable medium using an old image and a new image of a firmware for a mobile electronic device in a mobile services network, the method comprising:

converting symbols in the new and old images of the firmware into distance information;

determining a list of nodes in the old and new images of the firmware;

generating filter information, wherein generating filter information comprises capturing information regarding addresses where the contents of the location in the new image of firmware was able to be predicted;

generating the update package to be stored in a computer readable medium;

outputting the generated update package;

wherein determining comprises predicting the contents of locations in the new version of firmware based on differences in addresses identified between corresponding symbols in the old version of firmware and the new version of firmware, and identifying

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as nodes corresponding locations in the old image of firmware and the new image of firmware for which contents of the location in the new image of firmware was not able to be predicted; and

wherein predicting includes determining location of some symbols based on relocation information gathered from node symbols.

17. (Original) The method according to claim 16 wherein the distance information is determined by locating the symbols of the old image and the new image.

18. (Previously presented) The method according to claim 16 wherein the determining comprises:

determining addresses of symbols in the old image;

determining addresses of corresponding symbols in the new image;

comparing the differences in the addresses of the corresponding symbols in the old image and the new image;

predicting differences in addresses of subsequent symbols based on the differences in the addresses of previous symbols;

determining the symbols for which offsets cannot be predicted; and

using the unpredictable symbols as additional node symbols.

19. (Original) The method according to claim 16 wherein a pre-predict phase is performed to generate filter information, and wherein the pre-predict phase comprises:

identifying instructions using instruction prediction;

fixing address locations and producing filter information; and

fixing data and producing filter information using block hunting.

20. (Original) The method according to claim 16 wherein the filter information comprises node location and address range information where prediction was successful.

21. (Original) The method according to claim 16 wherein a pre-predict phase is performed to generate filter information, and wherein the pre-predict phase is followed by a predict phase, wherein the predict phase comprises:

performing instruction prediction utilizing the generated filter information; and

executing block hunting utilizing the generated filter information.

22. (Currently amended) A method for generating an update package to be stored in a computer readable medium using an old image and a new image of a firmware for a mobile electronic device in a mobile services network, the method comprising the steps of:

converting symbols in the new and old images of the firmware into distance information;

determining a list of nodes in the old and new images of the firmware;

generating information for a first filter;

creating a partially modified old image of the firmware utilizing the first filter;

generating information for a second filter;

creating a modified old image of the firmware utilizing the second filter and the partially modified old image of the firmware;

generating the update package to be stored in a computer readable medium;

outputting the generated update package; and

wherein determining comprises predicting the contents of locations in the new version of firmware based on differences in addresses identified between corresponding symbols in the old version of firmware and the new version of firmware, and identifying as nodes corresponding locations in the old image of firmware and the new image of firmware for which contents of the location in the new image of firmware was not able to be predicted based upon the old image of firmware; and

wherein predicting includes determining location of some symbols based on relocation information gathered from node symbols.